

GRENADA

CARRIACOU AND PETITE MARTINIQUE

NDPBA SUBNATIONAL PROFILE



GRENADA CARRIACOU AND PETITE MARTINIQUE

Area: 34 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Moderate

Score: 0.503 • Rank: 3/7



Household Population (2011 Census)

5.633



RESILIENCE (R)

- Moderate

Score: 0.489 • Rank: 3/7



Prevalence of Chronic Illness (per 100 persons)

25 /



MULTI-HAZARD EXPOSURE (MHE)

- High

Score: 0.488 • Rank: 2/7



Unemployment Rate

21.8%



VULNERABILITY (V)

- Moderate

Score: 0.532 • Rank: 3/7



Adults without Secondary Education

34.6%



COPING CAPACITY (CC)

- Hign

Score: 0.511 • Rank: 2/7



Population with No Internet Access

61.3%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 2/7 ASSESSED

SCORE: 0.488



MHE 0.488

Raw MHE 0.087

Relative MHE 0.890

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

10%

\$ 528

Buildings Exposed: 21%

Critical Infrastructure Exposed: 50%



Hurricane Winds

100%

5,100

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

5,100

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

NO DATA

No Data

Buildings Exposed: No Data

Critical Infrastructure Exposed: No Data



Extreme Heat

100%

5.100

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Sea Level Rise

9%

468

Buildings Exposed: 19%

Critical Infrastructure Exposed: 41%



Flash Flood

NO DATA

No Data

Buildings Exposed: No Data

Critical Infrastructure Exposed: No Data



Tsunami

7%

357

Buildings Exposed: 13%

Critical Infrastructure Exposed: 41%

NOTE: Population exposure values for Grenada are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 2/7 ASSESSED

SCORE: 0.488

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcano

No Data

♣ No Data

Buildings Exposed: No Data

Critical Infrastructure Exposed: No Data



Wildfire

4%

217

Buildings Exposed: 7%

Critical Infrastructure Exposed: 0%



VULNERABILITY (V)

RANK: 3 / 7 ASSESSED

SCORE: 0.532

Vulnerability in Carriacou and Petite Martinique is primarily driven by Household Infrastructure Vulnerability and Environmental Stress. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

SCORE: 0.334 **RANK: 6/7 ASSESSED**

97.6%

School Attendance Rate (children ages 5 to 16)

34.6% Adults without Secondary

Education

33.6% Household Computer Access

61.3% Population with No Internet Access



Economic Constraints

SCORE: 0.364 RANK: 5/7 ASSESSED

37.0

Economic Dependency Ratio

21.8% Unemployment

17.1% Youth Bulge (population ages 15-24)



Environmental Stress

Rate

SCORE: 0.715 **RANK: 3/7 ASSESSED**

SCORE: 0.493

RANK: 6/7 ASSESSED

42.6%

Coastline Exposure to Local or Global Threats

7.2% Tree Cover



Gender Inequality

Female to Male Labor Ratio

0.19

0.06 Parity in Secondary Education Attainment



RANK: 3 / 7 ASSESSED

SCORE: 0.532



Household Infrastructure Vulnerability

0 1

Toilets

1 SCORE: 0.941 RANK: 1/7 ASSESSED

37.9%

Housing Built Prior to 2000 47.4%
Households
with Indoor

71.2%Households with Improved Sanitation

0.5% Households with Treated Water



Household Composition and Vulnerable Health

0 1

25.4

persons)

SCORE: 0.697 RANK: 1/7 ASSESSED

19.0

Prevalence of Disability (per 100 persons) Prevalence of Chronic Illness (per 100 15.3% Population Age 65 and Over 21.7% Population Under Age 15



Population Pressures



1 SCORE: 0.182 RANK: 4/7 ASSESSED

1.0%

Average Annual Population Change 166.5
Population
Density
(persons per
sq km)



ISLAND CAPACITY (IC)

RANK: 2/7 ASSESSED

RANK: 3/7 ASSESSED

RANK: 4/7 ASSESSED

RANK: 1/7 ASSESSED

SCORE: 0.518

Carriacou and Petite Martinique exhibits weaker Island Capacity in the areas of Economic Capacity and Health Care Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity



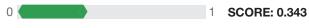
65.9% Labor Force Participation Rate

14.1% Households with Home Insurance

10.8% Household Content Insured (percent of households)



Environmental Capacity



0.07%

-9.3 Croplands Net Carbon Flux

27.5% Protected Terrestrial Area

63.0% Protected Coastlines

SCORE: 0.544



Governance Capacity



1.9% Prevalence of Crime

98.1% Household Waste Disposal

69.5% Voter Participation Rate



RANK: 2/7 ASSESSED

SCORE: 0.518



Infrastructure Capacity

SCORE: 0.710 RANK: 2/7 ASSESSED



Communications Capacity

SCORE: 0.692

RANK: 2/7 ASSESSED

66.6%

Households with Fixed Phones

69.6% Households with Mobile Phones

Emergency Services Capacity

SCORE: 0.692

RANK: 3/7 ASSESSED

2.7

Average Distance to Fire Station (km)

1.0 Average

Distance to Hospital or Clinic (km)

Average Distance to

Police Station

2.4

(km)

0.9 Average Distance to Shelter (km)

Energy Capacity

SCORE: 0.815

RANK: 2/7 ASSESSED

94.1% Household Electricity Access

92.4% Households Using Gas for Cooking



Health Care Capacity

SCORE: 0.641

RANK: 1/7 ASSESSED

53.3%

Health Insurance Coverage 1.18 Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 3 / 7 ASSESSED

SCORE: 0.505

Carriacou and Petite Martinique exhibits weaker Logistics Capacity in the areas of Warehouse Access and Maritime Logistics. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 1

1.8

Average Distance to Seaport (km) 193.4
Distance
to External
Medium or
Large Seaport
(km)

0.6
Port Density
(ports per
10km of



Air Support

0 1 SCC

SCORE: 1.000

SCORE: 0.365

RANK: 1/7 ASSESSED

RANK: 5/7 ASSESSED

19.6 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)

3.4



Transportation Capacity

0 (

1 SCORE: 0.655 RANK: 2/7 ASSESSED

0.4Gas Stations per 1,000

Persons

Road Density (km of roads per sq km)

2.3



Warehouse Access

0

SCORE: 0.000

RANK: 7/7 ASSESSED

58.3 Average

Distance to Warehouse (km) 193.4
Distance to
CDEMA SubRegional Focal
Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Grenada was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 2 / 7 ASSESSED

SCORE: 0.511



Resilience in Grenada was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 3 / 7 ASSESSED

SCORE: 0.489

KEY FACTORS INFLUENCING RESILIENCE

Carriacou and Petite Martinique's score and ranking are due to Moderate Vulnerability combined with High Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Household Infrastructure Vulnerability

Populations living in older housing, and prior to the enactment of modern building codes, are more susceptible to structural damage and losses as a result of hazard impacts. In addition, households experiencing access constraints to clean water and sanitation are challenged to maintain a standard of living that meets basic household needs, and face significant demands on daily routines that effectively limit their response and recovery capacity as well as the ability to maintain livelihoods. Increasing access to improved water and sanitation improves health outcomes and frees up resources to decrease further susceptibility to impacts.



Environmental Stress

Environmental stressors such as the depletion or contamination of natural resources can exacerbate natural hazards and negatively impact the health, safety, and economic security of the population.



Warehouse Access

Efficient storage, movement and delivery of resources are key to effective humanitarian assistance and disaster relief operations. Access to both local and regional supply chains can significantly improve the speed and quality of response operations, reducing the negative social and economic impacts of an emergency.

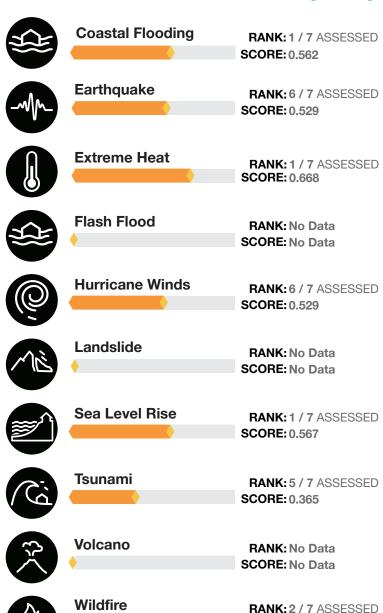


Maritime Logistics

Diverse maritime transport options, within and outside the country, offer crucial support for humanitarian efforts and the transit and delivery of disaster relief supplies. Protecting and maintaining port infrastructure and equipment can help safeguard these key assets and sustain functional operations during a disaster.



HAZARD-SPECIFIC RISK (HSR)



PDC Global www.pdc.org

SCORE: 0.389



MULTI-HAZARD RISK (MHR)

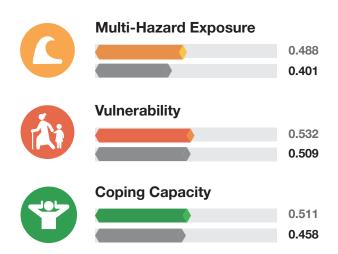
3/7

RANK AMONG PARISHES/DEPENDENCIES Score: 0.503

Carriacou and Petite Martinique's score and ranking are due to High Multi-Hazard Exposure combined with Moderate Vulnerability and High Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC_Global



/PDCGlobal



www.pdc.org



ndpba.eci@pdc.org



GRENADA

SAINT ANDREW

NDPBA SUBNATIONAL PROFILE



GRENADA SAINT ANDREW

Area: 99 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Very High

Score: 0.557 • Rank: 1/7



Household Population (2011 Census)

26,434



RESILIENCE (R)

- Low

Score: 0.398 • Rank: 5/7



Prevalence of Chronic Illness (per 100 persons)

21.0



MULTI-HAZARD EXPOSURE (MHE)

- Moderate

Score: 0.467 • Rank: 3/7



Unemployment Rate

32.7%



VULNERABILITY (V)

- High

Score: 0.634 • Rank: 2/7



Adults without Secondary

Education

50.4%



COPING CAPACITY (CC)

- LOW

Score: 0.430 • Rank: 4/7



Population with No Internet Access

69.9%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 3 / 7 ASSESSED

SCORE: 0.467



MHE 0.467

Raw MHE 0.411

Relative MHE 0.523

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

4%

\$1,100

Buildings Exposed: 5%

Critical Infrastructure Exposed: 25%



Hurricane Winds

100%

27,800

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

27,800

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

13%

3,610

Buildings Exposed: 16%

Critical Infrastructure Exposed: 25%



Extreme Heat

0%

≗ 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

3%

& 875

Buildings Exposed: 4%

Critical Infrastructure Exposed: 25%



Flash Flood

9%

2.560

Buildings Exposed: 10%

Critical Infrastructure Exposed: 39%



Tsunami

9%

2.560

Buildings Exposed: 10%

Critical Infrastructure Exposed: 51%

NOTE: Population exposure values for Grenada are estimated using PDC's AIM model. Values may differ from Census population.





MULTI-HAZARD EXPOSURE (MHE)

RANK: 3 / 7 ASSESSED

SCORE: 0.467

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcano **75%**

20,800

Buildings Exposed: 73%

Critical Infrastructure Exposed: 93%



Wildfire

1%

275

Buildings Exposed: 1%

Critical Infrastructure Exposed: **0%**



RANK: 2 / 7 ASSESSED

SCORE: 0.634

Vulnerability in Saint Andrew is primarily driven by Environmental Stress and Gender Inequality. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

SCORE: 0.750 **RANK: 3/7 ASSESSED**

98.0% School Attendance Rate (children

ages 5 to 16)

50.4% Adults without Secondary Education

24.1% Household Computer Access

69.9% Population with No Internet Access



Economic Constraints

Rate

SCORE: 0.706 RANK: 2/7 ASSESSED

35.6 Economic Dependency

Ratio

32.7% Unemployment

19.4% Youth Bulge (population ages 15-24)



Environmental Stress

SCORE: 1.000 RANK: 1/7 ASSESSED

68.7%

Coastline Exposure to Local or Global Threats

7.8% Tree Cover



Gender Inequality

SCORE: 0.805 RANK: 3/7 ASSESSED

0.19

Female to Male Labor Ratio

0.22 Parity in Secondary Education Attainment



RANK: 2 / 7 ASSESSED

SCORE: 0.634



Household Infrastructure Vulnerability

1 SCORE: 0.649 **RANK: 3/7 ASSESSED**

30.4%

Housing Built Prior to 2000

Households

65.9% Households with Improved Sanitation

73.4% Households with Treated Water



Household Composition and Vulnerable Health

1 SCORE: 0.401 **RANK: 5/7 ASSESSED**

13.7

Prevalence of Disability (per 100 persons)

21.0

51.4%

with Indoor

Toilets

Prevalence of Chronic Illness (per 100 persons)

9.5% Population

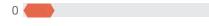
Age 65 and

Over

26.1% Population Under Age 15



Population Pressures



1 SCORE: 0.129

RANK: 6/7 ASSESSED

0.3% Average Annual Population

Change

267.7 Population Density

(persons per sq km)



ISLAND CAPACITY (IC)

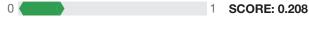
RANK: 4/7 ASSESSED

SCORE: 0.404

Saint Andrew exhibits weaker Island Capacity in the areas of Health Care Capacity and Communications Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity



67.0% Labor Force

Rate

Participation

14.8% Households with Home Insurance

7.2% Household Content Insured (percent of households)



Environmental Capacity

SCORE: 0.726

RANK: 1/7 ASSESSED

RANK: 6/7 ASSESSED

0.27% Croplands -20.5

Net Carbon Flux

22.3% Protected Terrestrial Area 68.6% Protected Coastlines



Governance Capacity



SCORE: 0.424

RANK: 4/7 ASSESSED

3.5% Prevalence of Crime

97.8% Household Waste Disposal

74.3% Voter Participation Rate



RANK: 4/7 ASSESSED

SCORE: 0.404



Infrastructure Capacity

SCORE: 0.332 RANK: 5/7 ASSESSED



Communications Capacity

SCORE: 0.266 RANK: 4/7 ASSESSED

45.2%

Households with Fixed Phones

70.0% Households with Mobile Phones



Emergency Services Capacity

3.3 Average Distance to Fire Station (km)

1.3 Average Distance to Hospital or Clinic (km)

2.3 Average Distance to Police Station (km)

1.1

Average Distance to Shelter (km)

SCORE: 0.539

SCORE: 0.323



Energy Capacity

86.4% 88.8%

Household Households Electricity Using Gas for Cooking Access



Health Care Capacity

SCORE: 0.201

RANK: 6/7 ASSESSED

RANK: 6/7 ASSESSED

RANK: 4/7 ASSESSED

53.5%

Health Insurance Coverage 0.25 Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 5 / 7 ASSESSED

SCORE: 0.455

Saint Andrew exhibits weaker Logistics Capacity in the areas of Air Support and Transportation Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 1

154.8

Distance

to External

Medium or

Large Seaport (km)

3.3

Average Distance to Seaport (km) O.7 Port I (ports

Port Density (ports per 10km of coastline)



Air Support

64.7 21.6

SCORE: 0.247

SCORE: 0.471

RANK: 6/7 ASSESSED

RANK: 4/7 ASSESSED

64.7
Distance to
External C130
Airport (km)

Average Distance to Airport or Heliport (km)



Transportation Capacity

2.3

0

1 SCORE: 0.269 RA

RANK: 7/7 ASSESSED

O.1
Gas Stations per 1,000
Persons

Road Density (km of roads per sq km)



Warehouse Access

0

SCORE: 0.831

RANK: 3/7 ASSESSED

14.7Average
Distance to
Warehouse

(km)

154.8
Distance to
CDEMA SubRegional Focal
Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Grenada was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 4 / 7 ASSESSED

SCORE: 0.430



Resilience in Grenada was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 5 / 7 ASSESSED

SCORE: 0.398

KEY FACTORS INFLUENCING RESILIENCE

Saint Andrew's score and ranking are due to High Vulnerability combined with Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Environmental Stress

Environmental stressors such as the depletion or contamination of natural resources can exacerbate natural hazards and negatively impact the health, safety, and economic security of the population.



Gender Inequality

Marginalized populations are less likely to have their needs met under pre-disaster conditions, and therefore become even more susceptible to harm during times of disaster. Increase gender-based inclusion in all phases of DM, ensuring the implementation at subnational and local levels. Courses of action must recognize the role of women in society and support changes to policies and programs to promote gender-equal access.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 5 / 7 ASSESSED SCORE: 0.355
-M/h	Earthquake	RANK: 1 / 7 ASSESSED SCORE: 0.661
	Extreme Heat	RANK: 4 / 7 ASSESSED SCORE: 0.000
	Flash Flood	RANK: 1 / 7 ASSESSED SCORE: 0.767
	Hurricane Winds	RANK: 1 / 7 ASSESSED SCORE: 0.661
MÈ	Landslide	RANK: 6 / 7 ASSESSED SCORE: 0.191
	Sea Level Rise	RANK: 5 / 7 ASSESSED SCORE: 0.391
	Tsunami	RANK: 2 / 7 ASSESSED SCORE: 0.521
\$500 A	Volcano	RANK: 1 / 7 ASSESSED SCORE: 0.675
	Wildfire	RANK: 5 / 7 ASSESSED SCORE: 0.212



MULTI-HAZARD RISK (MHR)

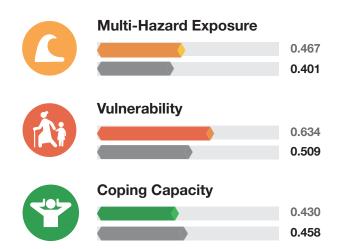
1 / 7

RANK AMONG PARISHES/DEPENDENCIES Score: 0.557

Saint Andrew's score and ranking are due to Moderate Multi-Hazard Exposure combined with High Vulnerability and Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC_Global



/PDCGlobal



www.pdc.org



ndpba.eci@pdc.org



SAINT DAVID

NDPBA SUBNATIONAL PROFILE



GRENADA SAINT DAVID

Area: 44 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Very Low

Score: 0.350 • Rank: 7/7



Household Population (2011 Census)

12,860



RESILIENCE (R)

- High

Score: 0.524 • Rank: 2/7



Prevalence of Chronic Illness (per 100 persons)

19.5



MULTI-HAZARD EXPOSURE (MHE)

- Very Low

Score: 0.099 • Rank: 6/7



Unemployment Rate

27.6%



VULNERABILITY (V)

- Very Low

Score: 0.428 • Rank: 6/7



Adults without Secondary Education

50.8%



COPING CAPACITY (CC)

- Moderate

Score: 0.475 • Rank: 3/7



Population with No Internet Access

60.9%



MULTI-HAZARD EXPOSURE (MHE)

MHE 0.099

Raw MHE 0.140

Relative MHE 0.058

RANK: 6 / 7 ASSESSED

SCORE: 0.099

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

5%

~ 728

Buildings Exposed: 3%

Critical Infrastructure Exposed: 25%



Hurricane Winds

100%

15,200

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

15,200

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

36%

5,480

Buildings Exposed: 40%

Critical Infrastructure Exposed: 72%



Extreme Heat

0%

2 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

4%

\$586

Buildings Exposed: 2%

Critical Infrastructure Exposed: 25%



Flash Flood

4%

584

Buildings Exposed: 4%

Critical Infrastructure Exposed: 19%



Tsunami

6%

848

Buildings Exposed: 4%

Critical Infrastructure Exposed: 21%

NOTE: Population exposure values for Grenada are estimated using PDC's AIM model. Values may differ from Census population.





MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 7 ASSESSED

SCORE: 0.099

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcano

0%

å 4

Buildings Exposed: <1%

Critical Infrastructure Exposed: 19%



Wildfire

4%

\$ 594

Buildings Exposed: 2%

Critical Infrastructure Exposed: **0%**



RANK: 6 / 7 ASSESSED

RANK: 5/7 ASSESSED

RANK: 4/7 ASSESSED

SCORE: 0.428

Vulnerability in Saint David is primarily driven by Environmental Stress and Gender Inequality. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

0 1 SCORE: 0.525

98.1% School

School Attendance Rate (children ages 5 to 16) **50.8%**Adults without Secondary Education

30.8% Household Computer Access 60.9%
Population with No Internet Access



Economic Constraints

1 SCORE: 0.400

32.8

Economic Dependency Ratio 27.6%

Unemployment Rate 19.2% Youth Bulge (population ages 15-24)



Environmental Stress

66.1% 7.8%

SCORE: 0.979

SCORE: 0.578

RANK: 2/7 ASSESSED

RANK: 5/7 ASSESSED

66.1%
Coastline
Exposure to
Local or Global
Threats

Tree Cover Loss



Gender Inequality

0

0.25

Female to Male Labor Ratio

0.14

Parity in Secondary Education Attainment



RANK: 6 / 7 ASSESSED

SCORE: 0.428



Household Infrastructure Vulnerability

1 **SCORE: 0.207 RANK: 7/7** ASSESSED

22.4%

Housing Built Prior to 2000 60.0% Households with Indoor

Toilets

88.6%
Households
with Improved
Sanitation

74.5% Households with Treated Water



Household Composition and Vulnerable Health

1 **SCORE: 0.155 RANK: 7/7** ASSESSED

12.4

Prevalence of Disability (per 100 persons) Prevalence of Chronic Illness (per 100 persons)

19.5

9.4%Population
Age 65 and
Over

23.5% Population Under Age 15



Population Pressures

0

1 SCORE: 0.149 RA

RANK: 5/7 ASSESSED

0.2%Average Annual Population Change

292.7
Population
Density
(persons per
sq km)



ISLAND CAPACITY (IC)

RANK: 3 / 7 ASSESSED

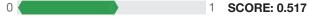
RANK: 2/7 ASSESSED

SCORE: 0.430

Saint David exhibits weaker Island Capacity in the areas of Energy Capacity and Emergency Services Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity



70.9%Labor Force Participation Rate

20.9% Households with Home Insurance 10.2% Household Content Insured (percent of households)



Environmental Capacity



SCORE: 0.563 RANK: 3/7 ASSESSED

0.07% Croplands -8.7 Net Carbon Flux **35.4%**Protected
Terrestrial Area

1.0% Protected Coastlines



Governance Capacity



1 SCORE: 0.369

RANK: 5/7 ASSESSED

3.3%
Prevalence of Crime

97.6% Household Waste Disposal **72.7%**Voter
Participation
Rate



RANK: 3 / 7 ASSESSED

SCORE: 0.430



Infrastructure Capacity

SCORE: 0.350 RANK: 4/7 ASSESSED



Communications Capacity

0

1 SCORE: 0.435 RANK: 3/7 ASSESSED

46.7%

Households with Fixed Phones 75.7% Households with Mobile Phones

Emergency Services Capacity

0

SCORE: 0.292

7.1Average
Distance to
Fire Station
(km)

1.3
Average
Distance to
Hospital or
Clinic (km)

2.3 Average Distance to Police Station (km) 1.4 Average Distance to Shelter (km)

SCORE: 0.281



Energy Capacity

85.2% 89.0

Household Electricity Access **89.0%**Households
Using Gas for
Cooking



Health Care Capacity

0

1 SCORE: 0.392 R

RANK: 3/7 ASSESSED

RANK: 7/7 ASSESSED

RANK: 5/7 ASSESSED

55.1%

Health Insurance Coverage **0.20**Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 2 / 7 ASSESSED

SCORE: 0.521

Saint David exhibits weaker Logistics Capacity in the areas of Transportation Capacity and Air Support. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

SCORE: 0.504 **RANK: 3/7 ASSESSED**

2.9 Average Distance to Seaport (km)

150.9 Distance to External Medium or Large Seaport (km)

0.4 Port Density (ports per 10km of coastline)



Air Support



SCORE: 0.331

RANK: 3/7 ASSESSED

RANK: 5/7 ASSESSED

78.0 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)

11.8



Transportation Capacity

1 SCORE: 0.307 3.5

Road Density (km of roads Persons per sq km)

0.1 Gas Stations per 1,000



Warehouse Access

1

SCORE: 0.941

RANK: 2/7 ASSESSED

7.5 Average

Distance to Warehouse (km)

150.9 Distance to CDEMA Sub-Regional Focal Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Grenada was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 3 / 7 ASSESSED

SCORE: 0.475



Resilience in Grenada was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 2 / 7 ASSESSED

SCORE: 0.524

KEY FACTORS INFLUENCING RESILIENCE

Saint David's score and ranking are due to Very Low Vulnerability combined with Moderate Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Environmental Stress

Environmental stressors such as the depletion or contamination of natural resources can exacerbate natural hazards and negatively impact the health, safety, and economic security of the population.



Gender Inequality

Marginalized populations are less likely to have their needs met under pre-disaster conditions, and therefore become even more susceptible to harm during times of disaster. Increase gender-based inclusion in all phases of DM, ensuring the implementation at subnational and local levels. Courses of action must recognize the role of women in society and support changes to policies and programs to promote gender-equal access.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

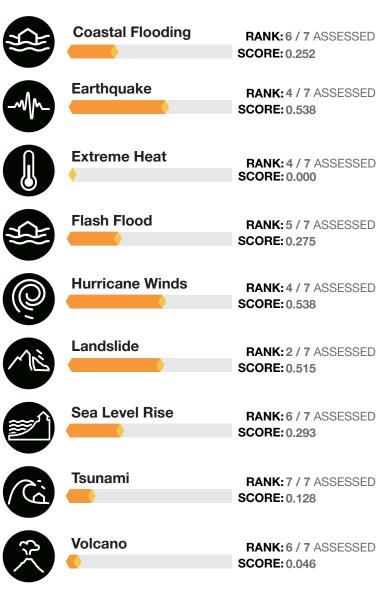


Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



HAZARD-SPECIFIC RISK (HSR)



Wildfire

40 PDC Global www.pdc.org

RANK: 4 / 7 ASSESSED

SCORE: 0.301



MULTI-HAZARD RISK (MHR)

7 / 7

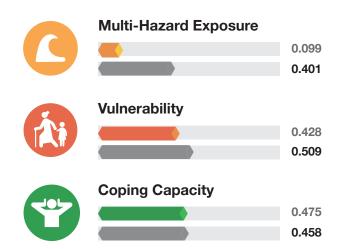
RANK AMONG PARISHES/DEPENDENCIES Score: 0.350



Saint David's score and ranking are due to Very Low Multi-Hazard Exposure combined with Very Low Vulnerability and Moderate Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC_Global



/PDCGlobal



www.pdc.org



ndpba.eci@pdc.org



GRENADA

SAINT GEORGE

NDPBA SUBNATIONAL PROFILE



GRENADA SAINT GEORGE

Area: 65 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Very Low

Score: 0.456 • Rank: 6/7



Household Population (2011 Census)

37,402



RESILIENCE (R)

- Very High

Score: 0.729 • Rank: 1/7



Prevalence of Chronic Illness (per 100 persons)

23.6



MULTI-HAZARD EXPOSURE (MHE)

- Very High

Score: 0.827 • Rank: 1/7



Unemployment Rate

20.3%



VULNERABILITY (V)

- Very Low

Score: 0.290 • Rank: 7/7



Adults without Secondary

Education

38.7%



COPING CAPACITY (CC)

- Very High

Score: 0.747 • Rank: 1/7



Population with No Internet Access

53.7%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 1/7 ASSESSED

SCORE: 0.827



MHE 0.827

Raw MHE 1.000

Relative MHE 0.653

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

8%

2,920

Buildings Exposed: 7%

Critical Infrastructure Exposed: 36%



Hurricane Winds

100%

38,900

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

38,900

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

28%

11,000

Buildings Exposed: 38%

Critical Infrastructure Exposed: 47%



Extreme Heat

21%

8.340

Buildings Exposed: 17%

Critical Infrastructure Exposed: 29%



Sea Level Rise

6%

2.290

Buildings Exposed: 5%

Critical Infrastructure Exposed: 35%



Flash Flood

3%

1.020

Buildings Exposed: 3%

Critical Infrastructure Exposed: 13%



Tsunami

13%

5.060

Buildings Exposed: 11%

Critical Infrastructure Exposed: 44%

NOTE: Population exposure values for Grenada are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 1/7 ASSESSED

SCORE: 0.827

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcano

43%

å 16,900

Buildings Exposed: 50%

Critical Infrastructure Exposed: 64%



Wildfire

8%

2,960

Buildings Exposed: 6%

Critical Infrastructure Exposed: **15%**



RANK: 7 / 7 ASSESSED

SCORE: 0.290

Vulnerability in Saint George is primarily driven by Population Pressures and Environmental Stress. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

0 🛑 1

SCORE: 0.063 RANK: 7/7 ASSESSED

98.1% School Attendance Rate (children ages 5 to 16) **38.7%**Adults without Secondary Education

44.2% 53.7% Population With No Access Internet Access



Economic Constraints

1 **SCORE: 0.032 RANK: 7/7** ASSESSED

32.0Economic
Dependency
Ratio

20.3% Unemployment Rate 17.4% Youth Bulge (population ages 15-24)



Environmental Stress

SCORE: 0.375 RANK: 5/7 ASSESSED

SCORE: 0.147

RANK: 7/7 ASSESSED

45.8%
Coastline
Exposure to
Local or Global
Threats

4.2%Tree Cover Loss



Gender Inequality

0

0.11Female to Male Labor Ratio

Parity in Secondary Education Attainment

0.13



RANK: 7 / 7 ASSESSED

SCORE: 0.290



Household Infrastructure Vulnerability

1 SCORE: 0.217 **RANK: 6/7 ASSESSED**

30.7%

Housing Built Prior to 2000

81.1% Households

Sanitation

10.2%

90.3% with Improved

Households with Indoor Toilets

83.6%

Households with Treated Water



Household Composition and Vulnerable Health

1 **SCORE: 0.196 RANK: 6/7 ASSESSED**

11.4

Prevalence of Disability (per 100 persons)

23.6

Population Prevalence of Age 65 and Chronic Illness Over (per 100 persons)

21.8%

Population Under Age 15



Population Pressures



1 SCORE: 1.000 **RANK: 1/7 ASSESSED**

2.4% Average Annual

Population Change

588.5 Population Density (persons per sq km)



ISLAND CAPACITY (IC)

RANK: 1 / 7 ASSESSED

SCORE: 0.693

Saint George exhibits weaker Island Capacity in the areas of Health Care Capacity and Governance Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity

0

SCORE: 1.000 RANK: 1/7 ASSESSED

73.8%Labor Force Participation

Rate

30.8% Households with Home Insurance 17.5% Household Content Insured (percent of households)



Environmental Capacity

0 1

SCORE: 0.569 RANK: 2/7 ASSESSED

0.10% Croplands -18.3 Net Carbon Flux **18.7%**Protected
Terrestrial Area

89.7% Protected Coastlines



Governance Capacity



SCORE: 0.351

RANK: 6/7 ASSESSED

3.4%Prevalence of Crime

99.1% Household Waste Disposal **66.7%**Voter
Participation
Rate



RANK: 1 / 7 ASSESSED

SCORE: 0.693



Infrastructure Capacity

SCORE: 0.772 RANK: 1/7 ASSESSED



Communications Capacity

1 SCORE: 0.746 RANK: 1/7 ASSESSED

54.1%

Households with Fixed Phones

82.4%Households with Mobile Phones

Š.

Emergency Services Capacity

1 **SCORE: 0.760 RANK: 1/7** ASSESSED

3.5
Average

Average Distance to Fire Station (km) O.9

Average
Distance to
Hospital or
Clinic (km)

2.1Average
Distance to
Police Station
(km)

0.8Average
Distance to
Shelter (km)

Energy Capacity

1 **SCORE: 0.962 RANK: 1/7** ASSESSED

93.2%

Household Electricity Access Households Using Gas for Cooking

96.4%



Health Care Capacity

0

1 SCORE: 0.622

RANK: 2/7 ASSESSED

55.8%

Health Insurance Coverage **0.44**Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 1 / 7 ASSESSED

SCORE: 0.802

Saint George exhibits weaker Logistics Capacity in the areas of Air Support and Transportation Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 \(\) 1

SCORE: 1.000 RANK: 1/7 ASSESSED

1.5
Average
Distance to
Seaport (km)

149.4
Distance
to External
Medium or
Large Seaport
(km)

2.9
Port Density
(ports per
10km of
coastline)



Air Support

0

SCORE: 0.454 RANK:

RANK: 2/7 ASSESSED

76.0Distance to
External C130
Airport (km)

Average Distance to Airport or Heliport (km)

6.5



Transportation Capacity

0

1 SCORE: 0.754 RANK: 1/7 ASSESSED

0.2Gas Stations per 1,000
Persons

5.0Road Density (km of roads per sq km)



Warehouse Access

0 (

SCORE: 1.000 RANK: 1/7 ASSESSED

2.7
Average
Distance to
Warehouse

(km)

149.4
Distance to
CDEMA SubRegional Focal
Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Grenada was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 1 / 7 ASSESSED

SCORE: 0.747



Resilience in Grenada was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 1 / 7 ASSESSED

SCORE: 0.729

KEY FACTORS INFLUENCING RESILIENCE

Saint George's score and ranking are due to Very Low Vulnerability combined with Very High Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Population Pressures

Rapid changes in population size and distribution can alter population vulnerability characteristics presenting planning challenges and destabilizing social, economic, and environmental systems. Increased population pressures require disaster managers to realign needs, institutional structures, and available resources to support delivery of basic resources before, during, and after an event.



Environmental Stress

Environmental stressors such as the depletion or contamination of natural resources can exacerbate natural hazards and negatively impact the health, safety, and economic security of the population.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 2 / 7 ASSESSED SCORE: 0.446
-W/\-	Earthquake	RANK: 7 / 7 ASSESSED SCORE: 0.521
	Extreme Heat	RANK: 2 / 7 ASSESSED SCORE: 0.408
	Flash Flood	RANK: 3 / 7 ASSESSED SCORE: 0.293
	Hurricane Winds	RANK: 7 / 7 ASSESSED SCORE: 0.521
MÈ	Landslide	RANK: 3 / 7 ASSESSED SCORE: 0.464
	Sea Level Rise	RANK: 2 / 7 ASSESSED SCORE: 0.455
	Tsunami	RANK: 3 / 7 ASSESSED SCORE: 0.475
\$\frac{1}{2}	Volcano	RANK: 4 / 7 ASSESSED SCORE: 0.441
	Wildfire	RANK: 1 / 7 ASSESSED SCORE: 0.515



MULTI-HAZARD RISK (MHR)

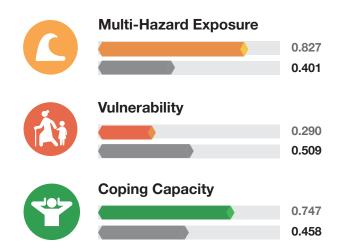
6 / 7

RANK AMONG PARISHES/DEPENDENCIES Score: 0.456

Saint George's score and ranking are due to Very High Multi-Hazard Exposure combined with Very Low Vulnerability and Very High Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC_Global



/PDCGlobal



www.pdc.org



ndpba.eci@pdc.org



GRENADA
SAINT JOHN

NDPBA SUBNATIONAL PROFILE



GRENADA SAINT JOHN

Area: 35 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Moderate

Score: 0.503 • Rank: 3/7



Household Population (2011 Census)

8,405



RESILIENCE (R)

- Low

Score: 0.474 • Rank: 4/7



Prevalence of Chronic Illness (per 100 persons)

27.0



MULTI-HAZARD EXPOSURE (MHE)

- Low

Score: 0.458 • Rank: 4/7



Unemployment Rate

24.7%



VULNERABILITY (V)

- Low

Score: 0.475 • Rank: 5/7



Adults without Secondary Education

50.4%



COPING CAPACITY (CC)

- LOW

Score: 0.424 • Rank: 5/7



Population with No Internet Access

63.8%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 4/7 ASSESSED

SCORE: 0.458



MHE 0.458

Raw MHE 0.104

Relative MHE 0.812

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

5%

383

Buildings Exposed: 7%

Critical Infrastructure Exposed: 38%



Hurricane Winds

100%

4 7,590

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

4 7,590

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

33%

2,530

Buildings Exposed: 36%

Critical Infrastructure Exposed: 38%



Extreme Heat

0%

2 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

4%

334

Buildings Exposed: 6%

Critical Infrastructure Exposed: 38%



Flash Flood

4%

282

Buildings Exposed: 7%

Critical Infrastructure Exposed: 13%



Tsunami

9%

649

Buildings Exposed: 14%

Critical Infrastructure Exposed: 41%

NOTE: Population exposure values for Grenada are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 4/7 ASSESSED

SCORE: 0.458

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcano

100%

2 7,590

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Wildfire

<1%

å 7

Buildings Exposed: <1%

Critical Infrastructure Exposed: **0%**



RANK: 5 / 7 ASSESSED

SCORE: 0.475

Vulnerability in Saint John is primarily driven by Information Access Vulnerability and Gender Inequality. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

1 **SCORE: 0.846 RANK: 2/7** ASSESSED

96.7% School Attendance Rate (children

ages 5 to 16)

50.4%Adults without Secondary Education

27.2% Household Computer Access 63.8%
Population with No Internet Access



Economic Constraints

1 SCORE: 0.300 RANK: 6/7 ASSESSED

32.0 Economic Dependency

Ratio

24.7% Unemployment Rate 19.4% Youth Bulge (population ages 15-24)



Environmental Stress

1

SCORE: 0.024 RANK: 7/7 ASSESSED

7.1%
Coastline
Exposure to
Local or Global
Threats

Tree Cover Loss

3.9%



Gender Inequality

1 **SCORE: 0.724 RANK: 4/7** ASSESSED

0.17Female to Male Labor Ratio

0.23Parity in
Secondary
Education
Attainment



RANK: 5 / 7 ASSESSED

SCORE: 0.475



Household Infrastructure Vulnerability

1 **SCORE: 0.588 RANK: 5/7** ASSESSED

34.1%

Housing Built Households Prior to 2000 with Indoor

58.2%

Toilets

73.7%
Households
with Improved
Sanitation

69.3% Households with Treated Water



Household Composition and Vulnerable Health

0 SCORE: 0.554 RANK: 3/7 ASSESSED

18.9

Prevalence of Disability (per 100 persons) 27.0
Prevalence of Chronic Illness (per 100

persons)

10.3% Population Age 65 and Over 21.7% Population Under Age 15



Population Pressures



1 SCORE: 0.292 RANK: 2/7 ASSESSED

1.1%Average Annual Population Change

242.0 Population Density (persons per sq km)



ISLAND CAPACITY (IC)

RANK: 5 / 7 ASSESSED

RANK: 4/7 ASSESSED

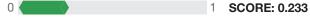
RANK: 2/7 ASSESSED

SCORE: 0.350

Saint John exhibits weaker Island Capacity in the areas of Communications Capacity and Health Care Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity



68.1%Labor Force Participation Rate

14.3% Households with Home Insurance 7.4% Household Content Insured (percent of households)



Environmental Capacity

0 1

SCORE: 0.227 RANK: 6/7 ASSESSED

0.00% Croplands -13.4 Net Carbon Flux **16.1%**Protected
Terrestrial Area

61.6% Protected Coastlines

SCORE: 0.445



Governance Capacity



Prevalence of Crime

2.6%

98.2% Household Waste Disposal **69.5%**Voter
Participation
Rate



RANK: 5 / 7 ASSESSED

SCORE: 0.350



Infrastructure Capacity

SCORE: 0.422 RANK: 3/7 ASSESSED



Communications Capacity

0

1 SCORE: 0.256 RANK: 5/7 ASSESSED

45.6%

Households with Fixed Phones

69.3%Households with Mobile Phones

-**5**

Emergency Services Capacity

0

SCORE: 0.665

RANK: 4/7 ASSESSED

2.7
Average
Distance to
Fire Station
(km)

1.4Average
Distance to
Hospital or
Clinic (km)

1.5 Average Distance to Police Station (km) **0.9**Average
Distance to
Shelter (km)



86.6%

86.6% 91.5%
Household Households
Electricity Using Gas for Cooking

SCORE: 0.454

RANK: 3/7 ASSESSED

Health

Health Care Capacity

0

1 SCORE: 0.315

RANK: 4/7 ASSESSED

53.8%

Health Insurance Coverage Hospitals and Clinics per 1,000 Persons

0.40



LOGISTICS CAPACITY (LC)

RANK: 4 / 7 ASSESSED

SCORE: 0.498

Saint John exhibits weaker Logistics Capacity in the areas of Air Support and Transportation Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.

SCORE: 0.288

1 SCORE: 0.400



Maritime Logistics

SCORE: 0.515 RANK: 2/7 ASSESSED

RANK: 4/7 ASSESSED

RANK: 4/7 ASSESSED

2.8 Average Distance to Seaport (km)

162.2 Distance to External Medium or Large Seaport (km)

1.0 Port Density (ports per 10km of coastline)



Air Support



Average External C130 Distance to Airport (km)

70.5 17.1 Distance to

Airport or Heliport (km)



Transportation Capacity

0.3 1.9 Gas Stations Road Density per 1,000 (km of roads Persons per sq km)



Warehouse Access

RANK: 4/7 ASSESSED SCORE: 0.788

10.1 Average

Distance to Warehouse (km)

162.2 Distance to CDEMA Sub-Regional Focal Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Grenada was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 5 / 7 ASSESSED

SCORE: 0.424



Resilience in Grenada was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 4 / 7 ASSESSED

SCORE: 0.474

KEY FACTORS INFLUENCING RESILIENCE

Saint John's score and ranking are due to Low Vulnerability combined with Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the region. Emergency messages presented to the population must contain clear and simple information to ensure an appropriate response to save lives and reduce losses.



Gender Inequality

Marginalized populations are less likely to have their needs met under pre-disaster conditions, and therefore become even more susceptible to harm during times of disaster. Increase gender-based inclusion in all phases of DM, ensuring the implementation at subnational and local levels. Courses of action must recognize the role of women in society and support changes to policies and programs to promote gender-equal access.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.

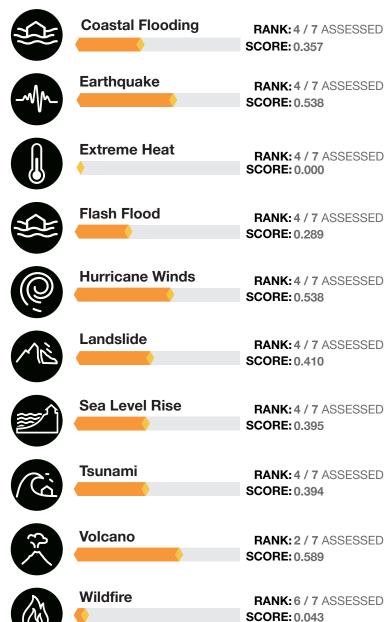


Transportation Capacity

Dense road networks and refueling locations facilitate the evacuation of populations during a disaster and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



HAZARD-SPECIFIC RISK (HSR)





MULTI-HAZARD RISK (MHR)

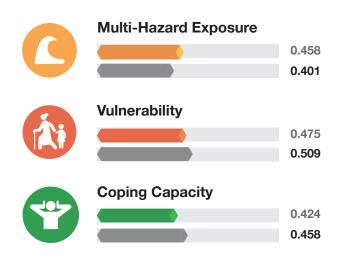
3/7

RANK AMONG PARISHES/DEPENDENCIES Score: 0.503

Saint John's score and ranking are due to Low Multi-Hazard Exposure combined with Low Vulnerability and Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC_Global



/PDCGlobal



www.pdc.org



ndpba.eci@pdc.org



GRENADA
SAINT MARK

NDPBA SUBNATIONAL PROFILE



GRENADA SAINT MARK

Area: 25 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- High

Score: 0.542 • Rank: 2/7



Household Population (2011 Census)

4.346



RESILIENCE (R)

- Very Low

Score: 0.381 • Rank: 6/7



Prevalence of Chronic Illness (per 100 persons)

23.4



MULTI-HAZARD EXPOSURE (MHE)

- Low

Score: 0.386 • Rank: 5/7



Unemployment Rate

36.4%



VULNERABILITY (V)

- Low

Score: 0.530 • Rank: 4/7



Adults without Secondary Education

44.5%



COPING CAPACITY (CC)

- Very Low

Score: 0.291 • Rank: 7/7



Population with No Internet Access

69.6%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 5 / 7 ASSESSED

SCORE: 0.386



MHE 0.386

Raw MHE 0.000

Relative MHE 0.773

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

8%

296

Buildings Exposed: 11%

Critical Infrastructure Exposed: 27%



Hurricane Winds

100%

3,890

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

3,890

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

42%

1,620

Buildings Exposed: 46%

Critical Infrastructure Exposed: 53%



Extreme Heat

0%

≗ 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

7%

263

Buildings Exposed: 9%

Critical Infrastructure Exposed: 27%



Flash Flood

3%

104

Buildings Exposed: 4%

Critical Infrastructure Exposed: 23%



Tsunami

14%

541

Buildings Exposed: 27%

Critical Infrastructure Exposed: 47%

NOTE: Population exposure values for Grenada are estimated using PDC's AIM model. Values may differ from Census population.



MULTI-HAZARD EXPOSURE (MHE)

RANK: 5 / 7 ASSESSED

SCORE: 0.386

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcano **70%**

2,730

Buildings Exposed: **74%**Critical Infrastructure Exposed: **90%**



Wildfire

6 0

Buildings Exposed: 0%

Critical Infrastructure Exposed: **0%**

www.pdc.org

PDC Global



RANK: 4 / 7 ASSESSED

SCORE: 0.530

Vulnerability in Saint Mark is primarily driven by Gender Inequality and Economic Constraints. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

SCORE: 0.689 **RANK: 4/7 ASSESSED**

97.9%

School Attendance Rate (children ages 5 to 16)

44.5% Adults without Secondary Education

22.6% Household Computer Access

69.6% Population with No Internet Access



Economic Constraints

Rate

SCORE: 0.756 RANK: 1/7 ASSESSED

33.3

Economic Dependency Ratio

36.4%

20.8% Youth Bulge Unemployment (population ages 15-24)



Environmental Stress

SCORE: 0.213 **RANK: 6/7 ASSESSED**

33.4%

Coastline Exposure to Local or Global Threats

3.7% Tree Cover



Gender Inequality

SCORE: 0.832 **RANK: 2/7 ASSESSED**

0.16

Female to Male Labor Ratio

0.32 Parity in Secondary Education Attainment



RANK: 4 / 7 ASSESSED

SCORE: 0.530



Household Infrastructure Vulnerability

0

SCORE: 0.696 RANK: 2/7 ASSESSED

36.0%

Housing Built Prior to 2000

56.7%
Households with Indoor Toilets

66.8% Households with Improved Sanitation **72.2%**Households with Treated Water



Household Composition and Vulnerable Health

1 SCORE: 0.412

15.1

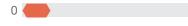
Prevalence of Disability (per 100 persons) Prevalence of Chronic Illness (per 100 persons)

23.4

8.8% Population Age 65 and Over **24.5%**Population
Under Age 15



Population Pressures



1 SCORE: 0.111 RA

RANK: 7/7 ASSESSED

RANK: 4/7 ASSESSED

0.6%

Average Annual Population Change

176.3 Population Density (persons per sq km)



ISLAND CAPACITY (IC)

RANK: 7 / 7 ASSESSED

SCORE: 0.237

Saint Mark exhibits weaker Island Capacity in the areas of Health Care Capacity and Energy Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity



69.7%Labor Force Participation Rate

12.4% Households with Home Insurance

6.9%
Household
Content
Insured
(percent of
households)



Environmental Capacity

-8.9

0 **1** SCC

SCORE: 0.029 F

RANK: 7/7 ASSESSED

RANK: 3/7 ASSESSED

RANK: 5/7 ASSESSED

0.03% Croplands

Net Carbon Flux 13.5% Protected Terrestrial Area 37.1% Protected Coastlines

SCORE: 0.441



Governance Capacity



1.4%

Prevalence of Crime

97.7% Household Waste

Disposal

67.3% Voter

Voter Participation Rate



ISLAND CAPACITY (IC)

RANK: 7 / 7 ASSESSED

SCORE: 0.237



Infrastructure Capacity

SCORE: 0.246 RANK: 7/7 ASSESSED



Communications Capacity

SCORE: 0.200 RANK: 6/7 ASSESSED

42.0%

Households with Fixed Phones

69.9% Households with Mobile Phones

Emergency Services Capacity

0.9

SCORE: 0.629

SCORE: 0.124

RANK: 5/7 ASSESSED

RANK: 7/7 ASSESSED

4.6 Average Distance to Fire Station

(km)

Average Distance to Hospital or Clinic (km)

1.0 Average Distance to Police Station (km)

3.9 Average Distance to Shelter (km)



Energy Capacity

82.4%

88.2%

Household Electricity Access

Households Using Gas for Cooking



Health Care Capacity

SCORE: 0.030

RANK: 7/7 ASSESSED

52.3%

Health Insurance Coverage 0.26 Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 7 / 7 ASSESSED

SCORE: 0.345

Saint Mark exhibits weaker Logistics Capacity in the areas of Maritime Logistics and Air Support. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

0 1

SCORE: 0.203 R

RANK: 7/7 ASSESSED

4.0

Average Distance to Seaport (km) 166.6
Distance
to External
Medium or
Large Seaport
(km)

O.O
Port Density
(ports per
10km of
coastline)



Air Support

0

SCORE: 0.204

RANK: 7/7 ASSESSED

64.7
Distance to
External C130
Airport (km)

23.7
Average
Distance to
Airport or
Heliport (km)



Transportation Capacity

1.1

0

1 SCORE: 0.293 RANK: 6/7 ASSESSED

0.3Gas Stations per 1,000
Persons

Road Density (km of roads per sq km)



Warehouse Access

0

1 SCORE: 0.681 F

RANK: 5/7 ASSESSED

16.5
Average
Distance to
Warehouse

(km)

166.6 Distance to CDEMA Sub-Regional Focal Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Grenada was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 7 / 7 ASSESSED

SCORE: 0.291



Resilience in Grenada was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 6 / 7 ASSESSED

SCORE: 0.381

KEY FACTORS INFLUENCING RESILIENCE

Saint Mark's score and ranking are due to Low Vulnerability combined with Very Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Gender Inequality

Marginalized populations are less likely to have their needs met under pre-disaster conditions, and therefore become even more susceptible to harm during times of disaster. Increase gender-based inclusion in all phases of DM, ensuring the implementation at subnational and local levels. Courses of action must recognize the role of women in society and support changes to policies and programs to promote gender-equal access.



Economic Constraints

Economic constraints have individual, household, community, and region-wide influence. Limitations on available financial resources reduce opportunities to invest in mitigation and preparedness measures and limit the ability to facilitate short- and long-term recovery.



Maritime Logistics

Diverse maritime transport options, within and outside the country, offer crucial support for humanitarian efforts and the transit and delivery of disaster relief supplies. Protecting and maintaining port infrastructure and equipment can help safeguard these key assets and sustain functional operations during a disaster.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



HAZARD-SPECIFIC RISK (HSR)

	Coastal Flooding	RANK: 3 / 7 ASSESSED SCORE: 0.385
-1/-	Earthquake	RANK: 3 / 7 ASSESSED SCORE: 0.556
	Extreme Heat	RANK: 4 / 7 ASSESSED SCORE: 0.000
	Flash Flood	RANK: 6 / 7 ASSESSED SCORE: 0.249
	Hurricane Winds	RANK: 3 / 7 ASSESSED SCORE: 0.556
	Landslide	RANK: 1 / 7 ASSESSED SCORE: 0.519
	Sea Level Rise	RANK: 3 / 7 ASSESSED SCORE: 0.424
(3)	Tsunami	RANK: 1 / 7 ASSESSED SCORE: 0.558
\$\frac{1}{2}	Volcano	RANK: 3 / 7 ASSESSED SCORE: 0.521
	Wildfire	RANK: 7 / 7 ASSESSED SCORE: 0.000



MULTI-HAZARD RISK (MHR)

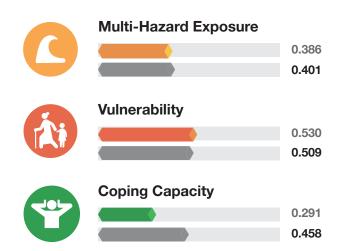
2/7

RANK AMONG PARISHES/DEPENDENCIES Score: 0.542

Saint Mark's score and ranking are due to Low Multi-Hazard Exposure combined with Low Vulnerability and Very Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC_Global



/PDCGlobal



www.pdc.org



ndpba.eci@pdc.org



GRENADA SAINT PATRICK

NDPBA SUBNATIONAL PROFILE



GRENADA SAINT PATRICK

Area: 42 km2





RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR)

- Low

Score: 0.476 • Rank: 5/7



Household Population (2011 Census)

10,461



RESILIENCE (R)

- Very Low

Score: 0.329 • Rank: 7/7



Prevalence of Chronic Illness (per 100 persons)

26.5



MULTI-HAZARD EXPOSURE (MHE)

- Very Low

Score: 0.085 • Rank: 7/7



Unemployment Rate

32.2%



VULNERABILITY (V)

- Very High

Score: 0.673 • Rank: 1/7



Adults without Secondary Education

48.6%



COPING CAPACITY (CC)

- Very Low

Score: 0.330 • Rank: 6/7



Population with No Internet Access

67.4%



MULTI-HAZARD EXPOSURE (MHE)

RANK: 7 / 7 ASSESSED

SCORE: 0.085



MHE 0.085

Raw MHE 0.148

Relative MHE 0.022

ESTIMATED EXPOSURE TO EACH HAZARD:



Coastal Flooding

1%

4 175

Buildings Exposed: 3%

Critical Infrastructure Exposed: 21%



Hurricane Winds

100%

12,700

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Earthquake

100%

12,700

Buildings Exposed: 100%

Critical Infrastructure Exposed: 100%



Landslide

15%

1,950

Buildings Exposed: 22%

Critical Infrastructure Exposed: 42%



Extreme Heat

0%

25

Buildings Exposed: 0%

Critical Infrastructure Exposed: 0%



Sea Level Rise

1%

134

Buildings Exposed: 2%

Critical Infrastructure Exposed: 11%



Flash Flood

8%

997

Buildings Exposed: 9%

Critical Infrastructure Exposed: 31%



Tsunami

5%

588

Buildings Exposed: 6%

Critical Infrastructure Exposed: 25%

NOTE: Population exposure values for Grenada are estimated using PDC's AIM model. Values may differ from Census population.





MULTI-HAZARD EXPOSURE (MHE)

RANK: 7 / 7 ASSESSED

SCORE: 0.085

ESTIMATED EXPOSURE TO EACH HAZARD (CONTINUED):



Volcano

19%

2,450

Buildings Exposed: 19%

Critical Infrastructure Exposed: 17%



Wildfire

3%

337

Buildings Exposed: 2%

Critical Infrastructure Exposed: 2%



RANK: 1 / 7 ASSESSED

SCORE: 0.673

Vulnerability in Saint Patrick is primarily driven by Information Access Vulnerability and Gender Inequality. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Information Access Vulnerability

0 SCORE: 0.917 RANK: 1/7 ASSESSED

96.7% School Attendance Rate (children ages 5 to 16) **48.6%**Adults without Secondary Education

23.0% Household Computer Access 67.4%
Population with No Internet Access



Economic Constraints

0 SCORE: 0.676 RANK: 3/7 ASSESSED

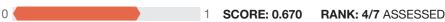
34.8Economic
Dependency
Ratio

32.2%Unemployment Rate

19.7% Youth Bulge (population ages 15-24)



Environmental Stress



62.5%
Coastline
Exposure to
Local or Global
Threats

5.5%Tree Cover Loss



Gender Inequality

0.18Female to Male Labor Ratio

0.28Parity in
Secondary
Education
Attainment



RANK: 1 / 7 ASSESSED

RANK: 4/7 ASSESSED

SCORE: 0.673



Household Infrastructure Vulnerability

1 SCORE: 0.638

34.5%

Housing Built Prior to 2000

53.2% Households with Indoor Toilets

72.3% Households

Households with Improved Sanitation

71.0%

with Treated Water



Household Composition and Vulnerable Health

1 **SCORE: 0.629 RANK: 2/7 ASSESSED**

18.1

Prevalence of Disability (per 100 persons)

26.5

Prevalence of Chronic Illness (per 100 persons)

12.8% 22.0% Population

Age 65 and

Over

Population Under Age 15



Population Pressures

1 SCORE: 0.283

RANK: 3/7 ASSESSED

1.0% Average Annual Population

Change

Population Density (persons per sq km)

250.1



ISLAND CAPACITY (IC)

RANK: 6 / 7 ASSESSED

SCORE: 0.239

Saint Patrick exhibits weaker Island Capacity in the areas of Communications Capacity and Energy Capacity. The bar charts indicate the socioeconomic themes contributing to the overall Island Capacity score.



Economic Capacity

1 SCORE: 0.024

61.1% Labor Force

Rate

Participation

13.4% Households with Home Insurance

7.1% Household Content Insured (percent of households)



Environmental Capacity

SCORE: 0.324

RANK: 5/7 ASSESSED

RANK: 7/7 ASSESSED

RANK: 7/7 ASSESSED

0.03% Croplands -14.7 Net Carbon Flux

15.2% Protected Terrestrial Area

75.3% Protected Coastlines

SCORE: 0.203



Governance Capacity

3.3% Prevalence of

Crime

97.3% Household Waste Disposal

70.6% Voter Participation Rate



ISLAND CAPACITY (IC)

RANK: 6 / 7 ASSESSED

SCORE: 0.239



Infrastructure Capacity

SCORE: 0.323

RANK: 6/7 ASSESSED



Communications Capacity

0

SCORE: 0.168

RANK: 7/7 ASSESSED

50.2%

Households with Fixed Phones 61.7% Households with Mobile Phones



Emergency Services Capacity

0

SCORE: 0.749

SCORE: 0.170

RANK: 2/7 ASSESSED

2.7Average

Distance to Fire Station (km) **1.1**Average
Distance to
Hospital or

Clinic (km)

1.7 Average Distance to Police Station (km) 1.1 Average Distance to Shelter (km)



Energy Capacity

85.5% Households

Household Households Electricity Using Gas for Access Cooking

86.4%

Hea

Health Care Capacity

0

SCORE: 0.205

RANK: 5/7 ASSESSED

RANK: 6/7 ASSESSED

53.1%

Health Insurance Coverage O.39
Hospitals and Clinics per 1,000 Persons



LOGISTICS CAPACITY (LC)

RANK: 6 / 7 ASSESSED

SCORE: 0.421

Saint Patrick exhibits weaker Logistics Capacity in the areas of Air Support and Maritime Logistics. The bar charts indicate the socioeconomic themes contributing to the overall Logistics Capacity score.



Maritime Logistics

SCORE: 0.338

RANK: 6/7 ASSESSED

3.1

Average Distance to Seaport (km)

168.0 Distance to External Medium or Large Seaport (km)

0.2 Port Density (ports per 10km of coastline)



Air Support

SCORE: 0.261

RANK: 5/7 ASSESSED

47.6 Distance to External C130 Airport (km)

Average Distance to Airport or Heliport (km)

28.1



Transportation Capacity

2.7

1 SCORE: 0.461 **RANK: 3/7 ASSESSED**

0.2 Gas Stations per 1,000

Road Density (km of roads Persons per sq km)



Warehouse Access

1

SCORE: 0.626 RANK: 6/7 ASSESSED

20.8 Average

Distance to Warehouse (km)

168.0 Distance to CDEMA Sub-Regional Focal Point (km)



Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. Coping Capacity of Grenada was calculated by using a combination of Island Capacity and Logistics Capacity.

RANK: 6 / 7 ASSESSED

SCORE: 0.330



Resilience in Grenada was calculated by using a combination of Vulnerability and Coping Capacity (including both Island Capacity and Logistics Capacity).

RANK: 7 / 7 ASSESSED

SCORE: 0.329

KEY FACTORS INFLUENCING RESILIENCE

Saint Patrick's score and ranking are due to Very High Vulnerability combined with Very Low Coping Capacity scores.

Below are the four thematic areas with the weakest relative scores:



Information Access Vulnerability

Limitations in information access can impede a population's ability to receive, understand, and take action. Emergency messages must take into account the unique information access constraints of the region. Emergency messages presented to the population must contain clear and simple information to ensure an appropriate response to save lives and reduce losses.



Gender Inequality

Marginalized populations are less likely to have their needs met under pre-disaster conditions, and therefore become even more susceptible to harm during times of disaster. Increase gender-based inclusion in all phases of DM, ensuring the implementation at subnational and local levels. Courses of action must recognize the role of women in society and support changes to policies and programs to promote gender-equal access.



Air Support

Air transport is a key component of timely response operations, supporting search and rescue, damage assessment efforts, and the delivery of relief supplies. Increasing air support capacity to accommodate C130 aircraft strengthens the ability to quickly deliver and disseminate emergency relief supplies to where they are most needed.



Maritime Logistics

Diverse maritime transport options, within and outside the country, offer crucial support for humanitarian efforts and the transit and delivery of disaster relief supplies. Protecting and maintaining port infrastructure and equipment can help safeguard these key assets and sustain functional operations during a disaster.



HAZARD-SPECIFIC RISK (HSR)



96 PDC Global www.pdc.org

SCORE: 0.340



MULTI-HAZARD RISK (MHR)

5/7

RANK AMONG PARISHES/DEPENDENCIES Score: 0.476

Saint Patrick's score and ranking are due to Very Low Multi-Hazard Exposure combined with Very High Vulnerability and Very Low Coping Capacity scores.

Multi-Hazard Risk component scores compared to overall average country scores:







Better solutions. Fewer disasters.

Safer Morida

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC_Global



/PDCGlobal



www.pdc.org



ndpba.eci@pdc.org